



ENGINEERING NEWS

British Gliding Association

No 59, May 2010

VOLCANIC ASH

The ash cloud and the grounding of the UK transport fleet has been the hot topic for the past week or so..... Luckily general aviation and gliding has been largely unaffected, however there are some technical issues that should be taken under consideration when operating in increased dust levels. It appears that the problem has not gone away with further airspace restrictions on May Day bank holiday.

It is most probable that you will not notice anything but you should be looking out for things like increased erosion on propeller leading edges especially wood and composite propellers, more contamination in engine air filters than normal (bearing in mind some engines only have rudimentary filtration) increased contamination inside carburettors and intake drillings, possible contamination in pitot/static systems especially where there is a constant flow such as "blown" wings. Sensitive instruments could be affected.



Volcanic ash is not really ash at all, its magma that was under very high pressure suddenly cooled and then exploded due to the gas dissolved in it during the eruption. It contains a high proportion of silica that is sharper than normal airborne dust particles, it is possible to see some marking or matting of canopy and window transparencies or aerofoil leading edges. In these cases before polishing with proprietary cleaners and polishes and in the case of obvious dust settlement, make sure the dust is washed off with water before polishing as if dust remains when polishing it will only make the problem worse. If in doubt please seek expert advice. If anything of any significance is found you are obliged to report it using the BGA Engineering Occurrence report or if in flight the BGA Accident/Incident reporting system.

The CAA has published [AIRCOM-2010/07](#) and [FODCOM-13/10](#) on this subject that are worth reading.

And lastly, sorry, you can't use "volcanic ash" as an excuse not to buy the beers after landing out because the vario was "playing up".

ARC ISSUES

At the end of March 2010 the BGA Chief Executive sent all BGA ARC signatories a letter reminding them of their responsibilities to ensure the ARC and renewal process is completed accurately and in accordance with BGA and CAA requirements.

We apologise to owners who may have been inconvenienced by a rejected ARC issued by a very small number of inspectors due to errors, but an ARC with an error (or not in the correct format) is invalid and may not be used for flight.

Because of the unacceptable number of errors we have received we have now allocated additional resources to check the ARC's.

We are working with our ARC signatories to improve the standard where lacking, however ARC signatories that persistently make mistakes may find that we have no option other than to suspend their authorisation until further training is carried out.

GLIDER ARCHIVE FILES

Reminder that glider archive files are available until 31 August 2010. If an owner wishes to receive the hard copy archive documentation that the BGA has on file for their glider, they should complete the [Glider Archive Request](#) form and either post it to Lizzie Pike at the BGA Office, or scan the completed and signed request and email to lizzie@gliding.co.uk

Unfortunately we are unable to supply electronic copies of glider Archive Documentation. This free of charge service will be available until 31st August 2010 following which unclaimed files will be shredded.

PART M UPDATE

As part of the BGA subpart M Maintenance Organisation development we have now identified those inspectors who have a higher than average throughput of work based on the number of ARC's they renew annually. These inspectors have been contacted and advised and will be part of the BGA oversight plan. However other inspectors should also be aware that the CAA now have added gliders to their ACAM audit programme. ACAM stands for "Aircraft Continuing Airworthiness Monitoring" should you be wondering. These audits will be carried out by the CAA regional office in your area. We are unable to tell you who will be audited and when but suffice to say if everything is in order it will be no problem for you, if you need help in some areas you will be advised. It is a good opportunity to get to know your regional surveyor.

RTO VACANCY

We have a vacancy for a BGA Regional Technical Officer for the Northern Ireland region. This region also covers the Isle of Man. The role is primarily to represent the BGA Technical Committee, be a focal point for BGA communications and for someone locally that inspectors can turn to for technical advice.

If you are an experienced and current BGA inspector and wish to be considered for this important role, please contact Jim Hammerton CTO. Thanks to John Lavery who after many years of outstanding service has decided to step down.

F.O.D.

Three letters that engineers and pilots should fear!

For those who don't know they stand for **Foreign Object Damage** or **Foreign Object Debris** and is a generic term that covers anything that may be loose articles inside an aircraft, loose on the floor, airfield, landing strip and any resulting damage caused when these articles end up where they shouldn't

A couple of recent incidents have highlighted this issue;

A recent in flight occurrence where a washer, presumably lost during some maintenance action, was found jamming a glider tow release. Fortunately the incident did not result in an accident and once the washer was removed the release worked perfectly.

Where did the washer come from? No-one has owned up.

Presumably it was dropped by someone removing or installing something in the aircraft.

A battery securing stud and wing nut was found missing on a DI. The stud was found straight away but the wing nut was nowhere to be seen. Perseverance prevailed and the glider was de-rigged and hey presto, the wing nut was found in the spar box. The annoying thing was that someone must have noticed when removing the battery but did not report it. (Witch hunt on-going!)

It is important to spread the message that FOD is dangerous and if you or someone loses anything it must be found or accounted for. It is recommended that inspectors, maintenance organisations and clubs have a FOD policy.

SPILT DRINK

A service club have just reported that some time ago someone flying in one of their club gliders spilt a bottle of Cola during a flight.

Whilst it is a good idea to take a drink on a hot day please be careful as this spilt Cola drained through the seat pan and ended up un-noticed in the belly of the glider. At the next annual inspection the discovery was made. Fortunately the GRP structure did not suffer anything more than a sticky mess but the metal fittings and hardware were not so fortunate. From the screws that hold the seat pan down to the controls underneath the seat, exposed metal surfaces suffered significant corrosion.

Remember that if something is spilt in any aircraft, including gliders, it must be thoroughly cleaned up and the appropriate maintenance action taken.

Sweet drinks usually contain sugars and other ingredients not particularly compatible with aircraft.

Carbonated drinks will effervesce more at reduced pressure at altitude and spill out of the bottle.

And a last thought, the "Technicolor Yawn" produced by airsick pupils contains stomach acid and is very corrosive as well as unpleasant.

All spills must be thoroughly cleaned up.